THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

VOL. XCIX. — THURSDAY, AUGUST 8, 1878. — NO. 6.

LECTURES.

CLINICAL LECTURE DELIVERED AT THE UNIVERSITY HOSPITAL.

BY WILLIAM GOODELL, A. M., M. D.,
Professor of Clinical Gynæcology in the Medical School of the University of Pennsylvania.

Perimetritis. — This patient is thirty-five years of age, and has been married for eleven years. She had her first and only child soon after her marriage. Since the birth of that child she has had four miscarriages, and has been a constant sufferer from cramps, dysmenorrhœa, pains in her back, leucorrhœa, dysuria, hysteria, painful defæcation, and pain in her sexual relations. Three months ago her monthlies ceased altogether. Her abdomen and breasts began to swell, and she had so much pain that she was obliged to call in a physician. He prescribed for her pills of iron and aloes, which very soon brought on her menses. She says that this physician told her that her chronic symptoms were due to some sort of inflammation of the womb.

The case looks very much to me like one of pelvic cellulitis. I shall at once proceed to make a vaginal examination. I find the cervix slightly lacerated, a result, undoubtedly, of the first labor. This laceration of the cervix — the purse-string of the womb — has been the cause of all her abortions. The cervix was not strong enough to retain the products of conception within the womb, and so they were aborted. This laceration is greater on the right than on the left side. Behind the cervix my finger impinges upon a very painful spot, — a tumor, — almost too elastic for a deposition of lymph, and yet I must examine further before I exclude that possibility. I insert one finger into the vagina, and with my other hand on the outside I make suprapubic pressure. My hand touches my finger in the vagina; there is no womb between them. There is evidently a state of retroversion or retroflexion. The woman is very brave and stands pain heroically. What is the tumor which lies behind the cervix? Is it an ovary prolapsed, or a deposition of lymph, or the fundus of the womb? I can trace the womb up a considerable distance with my finger in the vagina. Here is the eleventh finger of the gynæcologist, — a prolongation of the index finger some would call it, — the uterine sound. I am going to pass it into the womb and see what the state of affairs is in the cavity. But this requires caution. The woman tells me that she menstruated only two weeks ago, but still I want to be on the safe side, and so put the possibility of pregnancy out of the question. Let me examine her breasts. The glands are not enlarged, and there is no more areola than is natural in a brunette. Pressure fails to show any secretion of milk in the breast. I think it will be altogether safe to pass the sound.

Ocular examination shows me that the cervix looks directly at me, bearing the relation to the vagina of a stopper to a decanter; this means that the womb is directly in the axis of the vagina, whereas it should be nearly at right angles to that channel. There is, I find by the course pursued by the sound, slight flexion and slight retroversion to the right. The sound entered with great ease. I can move the womb in all directions but one; moving it upwards gives rise to great pain. This means an adhesion posteriorly; the womb is bound down by the adhesion. I am making my examination with great gentleness, and yet it gives rise to considerable pain.

I will tell you the conclusion at which I have arrived in my own mind with regard to the case. Remember that I may hereafter be led to change my mind in this regard. There is without doubt an adhesion which binds the womb down in its position of retroversion. This adhesion has been the result of a perimetritis or pelvic cellulitis. The doubt which I feel is with regard to the tumor which I feel in the vagina. If this tumor were free to move it would not be nearly so difficult to form an idea as to its nature, but it is bound fast in its place. From its elasticity it gives to my finger the impression of a fluid. This being the case, I am led to tell you that I do not believe it to be a prolapsed ovary, but a quantity of lymph, not pus, the result of the perimetric inflammation, which was first effused and then imprisoned.

What shall be the treatment? The main symptoms to be met are the inflammation, the pain, and the loss of appetite. The first thing that must be done is to put the woman to bed and keep her quiet. Then flying blisters should be applied locally over the abdomen. The substances which I always use to raise blisters are cantharides and collodion. These should be first painted on a spot about the size of a silver dollar right over the womb. As soon as the blister begins to draw a mush poultice should be applied. The loose skin over the blister should be cut open, and if the skin comes away it will be necessary to put cotton over the raw surface. When three days have passed I shall order another blister to be put upon the left side of the abdomen, then another on the right, then begin again with a blister over the womb.

As concerns internal treatment, one twenty-fourth of a grain of the bichloride of mercury, with ten grains of the muriate of ammonia, should be given thrice daily in the mistura glycyrrhizæ composita. If the tumor should turn out to be a prolapsed ovary, I doubt if we can ever get it up again. There is no use for the common pessary in such a case. If I had the material here I could make a very excellent pessary from cotton which could be so adjusted as to hold the womb up. This cotton should be dipped in a solution of from one half to one grain of morphia in one drachm of glycerine. The morphia will allay the inflammation, and the glycerine will set up a copious watery discharge from the vagina. You will ask me, no doubt, why I do not at once put the woman upon iron. As a rule, I do not begin the treatment with iron in these cases. I first try always to get the better of the inflammation, and I then place the woman upon the following mixture: —

℞	Hydrarg. chlo. corros.	gr. i.	
	Liq. chlo. arsenitis	fʒ ss.	
	Mist. ferri chlor.,		
	Acid. muriat. dil.	āā fʒ ij.	
	Syrup.	f℥ iij.	
	Aquæ	ad f℥ vi.	M.
S.	One tablespoonful after each meal.		

Iron sends the blood to the womb. As regards the prognosis, it is good so far as the prolongation of life is concerned. I am not prepared to say, however, that the woman will recover entirely. I might put her under ether now and forcibly lift up the womb, but the case is scarcely serious enough for such a heroic procedure.

Amenorrhœa from Arrested Development. — This puny little thing, who would generally pass for a stunted child of twelve years of age, tells me that she is twenty-one years old. Her mind corresponds in development with her body. I might be inclined at first to suspect the presence of rickets, but a careful examination of the patient puts that disease out of the question. The girl does not know how old she was when she began to walk, and can give me, in fact, but little of her early history. She says that her appetite has generally been quite good. She has come here to be treated for amenorrhœa. Her mammary glands and external genitals are entirely undeveloped. Her physical condition is wholly infantile, in fact. She has never seen her monthlies, and suffers from a good deal of weakness. The same cause which has produced her weakness has occasioned the absence of the monthlies.

The girl has been attending the dispensary for some time past. We ordered for her when she first came twenty-five drops of dialyzed iron and a tablespoonful of cod-liver oil three times a day. This medicine she says has done her a great deal of good. Her occupation consists in the painting of flowers. The paints used for that purpose very often contain arsenic. I cannot say, however, that she shows any symptoms traceable to this poison.

In looking still deeper for the cause of her present condition, we might find that her ovaries are undeveloped. Should such prove to be the case, and were it necessary that she should marry and have children; if, for instance, she were the only child of a wealthy family, then it might be right for me to make an examination of the parts. If I then found that both ovaries were undeveloped, or that there was only one ovary and that undeveloped, I should act in the following manner: I would irritate the womb by the use of sponge tents, and in that way endeavor to hasten the development of the organ. I am not warranted in so acting in this case. The examination would cause a great deal of discomfort and pain, and could only be conducted under ether. In closing, I should say to you that this case is one of exceeding rarity and interest.

THE VALUE OF ANATOMICAL APPEARANCES.[1]

BY R. H. FITZ, M. D.

THE object of the present paper is to refer very briefly to some of the general points to be borne in mind in making an autopsy, and to consider the group of changes found in a very common form of death, — that from suffocation.

In the medico-legal examination of the dead body, the end sought for is a knowledge of the condition of the various organs of the body, that an opinion may be formed as to the cause of death.

The evidence offered is physical, relating to form, density, color, etc., and its appreciation necessarily implies a familiarity with the physical properties normal to the part in question.

The first stumbling-block is here met with, and often proves a serious one. The obstacle becomes the greater from the fact that even normal conditions may be materially modified by the presence of alterations resulting from a series of processes, — chemical and other, — which are generally grouped together under the head of post-mortem changes. How important these are is often seen in the difficulty of distinguishing between a hypostatic patch and the discoloration due to a bruise, upon which distinction is to depend our opinion as to the ante- or post-mortem origin of an injury. Similar doubts also arise in the examination of the internal organs, and whether a redness is the sign of an inflammation, or an opacity the result of a degeneration, often becomes a matter of vital importance.

It is not only the normal properties of organs and tissues which may be thus modified, but serious pathological changes may also become obscured. I need only refer to the difficulty of deciding whether a heart or a kidney has been the seat of a granular or fatty degeneration occurring during life, or whether the observed characteristics may not be wholly due to post-mortem alterations. A study, therefore, of the latter is as essential as is the knowledge of morbid appearances.

---

[1] Read before the Massachusetts Medico-Legal Society.

Even when the examiner is perfectly familiar with normal and diseased appearances, as well as with those resulting from post-mortem processes, the results of his investigation may lose in value from his method of statement. It is the general tendency all the world over for the reporter to record his opinion and not his observation. In writing a description of the alterations found, the utmost possible attention should be paid to objective appearances. A dead body is an object of nature, one of an extremely composite character. It has been and is the seat of a great number of processes, some of which may have been the cause of death, while others represent a result of this condition. Those which have preceded death may have no very intimate connection with the same, and yet may produce a decided influence on the mind of the examiner from his knowledge of their sometime clinical importance. As the opportunities of most observers are mainly clinical, the tendency is a direct one to substitute clinical for anatomical and descriptive terms.

In a report of the examination of the dead body of a new-born child it is stated that the face was apoplectic in appearance. Such a description presents an opinion or judgment which is based upon several factors. Apoplexy has a symptomatic meaning, referring to being struck down, whence the common term apoplectic stroke. Since in many, though by no means in all, of these strokes intracranial hæmorrhages have been found, and were recognized as holding a causal relation to the result, the primary symptomatic significance of the word received a new meaning, and it became used as synonymous with hæmorrhage. As the stroke was found to occur without intracranial hæmorrhage, the congestive and serous apoplexies were formulated, whose value was largely clinical. From the predominant hæmorrhagic element in the first series, the pulmonary, splenic, and renal apoplexies were introduced to designate appearances resulting from the presence of abundant blood, although apoplectic symptoms were not connected. The clinical apoplexy was often associated with a flushed face, short neck, abundant fat tissue, stertorous breathing, loss of consciousness, and paralysis. Some of these conditions were thought to indicate the apoplectic habit or temperament, the possessor of which was liable to the stroke. The flushed face, as in the case of the infant referred to, has evidently been employed descriptively. A livid face, as we all know, indicates merely a disturbance in the circulation through the blood-vessels of the face, and may occur quite independently of any intracranial hæmorrhage, or hæmorrhage elsewhere. There is, therefore, strictly speaking, no apoplectic appearance of the face, and the livid hue may be due to numerous causes, particularly those interfering with the return of venous blood to the heart.

Another term which is much abused in the records of post-mortem examinations is inflammation. This is very often used in a purely descriptive sense. Inflammation of the lung, or intestine, or kidney, is stated as a matter of fact, whereas in reality an opinion is herewith expressed founded upon a number of facts. Inflammation, as we all know, represents a process, better still a sum of processes, which presents different appearances according to the stage, duration, organ affected, cause, etc. External inflammations have as very common factors redness and swelling. These are readily transferred as the essential features in describing the condition of the internal organs. But redness and swelling may both be present without any inflammation. The frequent inflammation of the intestine often owes its existence in the records to the presence of blood and fluid in the walls of the intestine, especially within the mucous membrane. Both these appearances often occur here, as elsewhere, as purely post-mortem phenomena. They may result from gravitation, from the distribution of the intestinal gases and other contents, in consequence of which blood is forced from those coils of intestine which are distended with gas, and accumulates in the portions of the tract from which the gas has escaped. To justify the opinion that there is inflammation, therefore, other facts are necessary, and would be present were the results of inflammation actually met with. After death there is no inflammation. That it may exist, vital processes in the organs and tissues of the body are necessary, and the anatomist seeks for the evidence which these processes have left behind in such parts.

Still another misused term may also be mentioned in this connection. The redness of an external inflamed part is called congestion, and as this is due to an increased quantity of blood in the part, the same term has been employed to represent that condition in general. As this increased quantity of blood has attracted attention chiefly from its clinical importance, the active and passive congestions have been discriminated, — those due to a flux of blood and those due to a prevented escape of blood. After death organs are often found to contain an increased quantity of blood, and the term congestion is commonly applied to this condition. The qualifications, active and passive, are no longer applicable in the same sense that they were during life. Then they represented nerve force, cell activity, muscular irritability, and mechanical influences of various sorts. Now most of these have ceased, though mechanical influences may still be present, and are of great importance in determining the post-mortem distribution of blood.

The appearance is primarily that of color, which is due to the presence of blood coloring matter properly within the vessels.

This distinction, however, is not always borne in mind, for one reads of a congestion of the aorta, referring merely to a diffused, dirty-red color of the inner surface of the artery. The nutrient vessels of this trunk are not sufficiently large to be visible to the naked eye; the color therefore might still be considered as due to blood within them. Microscopic examination shows that such is not the case, but that the color is due to a uniform staining of the tissues of the wall with blood coloring matter which has escaped from the corpuscles. From the limitation of the color, its position, and the association with other changes it is evident that this congestion merely indicates the post-mortem decomposition of the red blood-corpuscles and the escape of their coloring matter into the surrounding parts.

Where observers are still more exact in their use of language they apply the term congestion to the presence of blood within vessels visible to the naked eye. But as congestion is generally of clinical significance, and is dangerously suggestive of inflammation, it would be preferable to eliminate it from post-mortem terminology and substitute the word injection. Herewith we have purely the result of a physical process, which may occur after death as well as during life, the causes, however, being widely different. Some of them — as gravitation and the effect of intestinal gases — have already been alluded to. Others may be mentioned which also give evidence that a circulation of blood may take place after death. A recognition of this possibility becomes of exceeding importance in determining the origin of certain peculiar appearances which are not rarely confounded with those resulting from disease.

It is very well known that after death the arteries are usually found comparatively empty, while the veins contain a considerable quantity of blood. This differing relation is generally attributed to the post-mortem contraction of the thick muscular coat of the arteries, which serves to push the blood along in the course of the circulation, that is towards the veins. This represents, however, merely one step in the process. The relatively empty arteries are commonly the larger ones, while in the smaller arteries, as those at the base of the brain, a considerable quantity of blood may be present, and can even be withdrawn in the form of a clot. When this clotting has actually taken place the opportunities for a post-mortem arterial circulation are no longer favorable. Any contraction of the wall now serves merely to squeeze from the moist clot its liquid contents, which may either be pushed along or soak through the arterial wall into the surrounding tissues. On the venous side, however, the blood is largely fluid, particularly that within the smaller veins. It is therefore capable of being urged on not merely by the arterial *vis a tergo*, but also by the rigidity taking place within the voluntary muscles. Through their post-mortem action and the presence of valves the blood tends to flow from the extremities towards the heart, this tendency being favored by the presence of causes opposing rapid decomposition. The passage of blood towards the heart is still further promoted by the development of gas within the intestine. The more abundantly this forms the greater is the intra-abdominal tension, and the movable contents of the abdominal canals seek to escape through their outlets. The contents of the stomach are found in the mouth, those of the rectum and bladder at the external openings of these viscera, while the transmission of pressure through the walls of the inferior vena cava causes the inclosed blood to be pushed upwards into the heart. This blood may be movable, even if clotted, and the presence of homogeneous, soft, dark, curved, and laminated clots in the right auricle thus meets with the most ready explanation.

After the examiner has made a thorough and accurate study of the body the opportunity is presented for the formation of an opinion as to the cause of death. That this may be ascertained it is often necessary to obtain additional information with reference to the symptoms which preceded death, that is of the manner of dying. When severe injuries have been inflicted it is customary to attribute death to these. Yet we all know that injuries of the same apparent severity are by no means of equal gravity. Although we may be unable to determine why death should have taken place in any given instance, we are always called upon to seek for evidence of the manner of dying, and not unfrequently from the anatomical and histological appearances an opinion may be formed of considerable relative value.

It is the general custom, not only for the forensic but for most physicians, to use certain formulæ, which nominally express the cause of death, though in reality merely stating its existence. It is said to result from violence in consequence of certain injuries, or is caused by paralysis of the heart and lungs, in the absence of any evident injury. It may be due to inflammation, congestion, anæmia, or blood-poisoning. Death is assumed to result from a failure in the action of the brain, lungs, or heart, that is from coma, asphyxia, or syncope ; and the question therefore naturally arises, Can we determine from evidence found after death whether this statement contains a certain amount of truth ?

We are told that in death from syncope the heart is supplied with an insufficient quantity of blood, and consequently its action ceases. The anatomical appearances are said to be a normal proportion of blood in the two sides of the heart, and the presence of blood in the arterial and large venous trunks.

In death from asphyxia, on the contrary, defective blood is furnished to the various organs of the body in consequence of an obstruction to the entrance of air into the lungs. The appearances described as characteristic of this form of death are an engorgement of the right side of the heart, and of its feeding and distributing vessels, with an empty condition of the vessels and cavities carrying arterial blood. In certain cases of asphyxia, however, the cavities are said to have been found empty, and the term syncopal-asphyxia is offered to express this condition. The indications of death by the brain are to be found in a congested condition of the brain and its membranes.

This time-honored classification of the causes of death may be considered as having little more than a clinical significance. The terms are indicative of symptoms, for in syncope the person is cut down as in apoplexy; in asphyxia he is pulseless; and when comatose he is profoundly asleep. All of these conditions may occur more or less suddenly, and may last for a longer or shorter time. What is of especial importance at present is the general absence of anatomical evidence characteristic of the sole existence of the one or the other of these conditions during life. Pathological changes in the brain, either acute or chronic in character, may undoubtedly give rise to a paralysis of respiration and circulation, and it is by no means easy to obtain evidence as to which of these processes was the first, or which the most affected. The eventual result is the same: the production of such changes in the composition of the blood that it is no longer properly aerated and decarbonized. Disturbances in the functions of various organs of the body result, difficult breathing being a prominent symptom, and death is to be regarded as due to suffocation. The popular idea of the meaning of this term is limited to an obstruction of the air passages by foreign bodies acting from without or from within. Suffocation, however, is rather a condition composed of a group of symptoms, due most probably to an accumulation of carbonic acid in the blood and a diminution in the quantity of oxygen. It may result from causes preventing the admission of atmospheric air into the lungs, from those hindering the free circulation of blood in the lungs, and from those rapidly withdrawing oxygen from the blood.

In the first and last series are to be found the causes which are particularly important to the medical examiner, as they include cases of death from violence, injury, and certain poisons.

Writers on medical jurisprudence differ considerably in their statements as to the value of anatomical evidence in determining suffocative death. Most pathologists, however, would probably agree that the group of appearances to be met with is sufficient to establish the diagnosis in the majority of cases. The single appearances may be very considerably modified by the length of time during which death was taking place, the condition of the person at the time of impending death, and that of the air passages at the moment of death. They all relate to the condition of the blood and to that of certain organs in consequence of its altered composition.

A dark color and fluidity are the two most striking characteristics of the blood in cases of suffocation, and have long attracted attention. The former is of apparent value rather than of real importance, as all blood is dark after death, unless its coloring matter has been previously modified by certain substances, notably carbonic oxide gas. The dark color is particularly noticed at the autopsy, in consequence of the usual increased quantity of blood found in the right heart, and its fluid condition.

When death occurs under other circumstances and the blood clots, a gravitation of the red blood-corpuscles generally takes place, and the light and dark portions of the clot are differentiated. The lighter portion of such a clot may so predominate under various conditions that, in extreme cases, as in leucæmia, the blood may bear a resemblance to pus.

The dark color is not therefore to be regarded as due to any vital conditions, impregnation with carbonic acid gas, or deficiency of oxygen previous to death, but merely as a characteristic of the blood of dead persons in general.

The fluidity of the blood is of far greater consequence as a sign of death from suffocation, and is very constantly observed in the right side of the heart and in the vessels connected with it. We have but little positive knowledge as to the cause of the fluid condition in these cases, nor can we regard the appearance as of absolute value. Liquid blood may be present when death has not been the result of suffocation, and in undoubted cases of death from suffocation the blood has been found clotted. An important element in the origin of the latter exception to the rule seems to lie in the length of time between the action of the suffocating cause and the event of death. In gradual death from suffocation the right auricle and ventricle may contain clotted blood; so that the presence of such blood is not opposed to the theory of suffocative death.

Another important condition very commonly met with is the distention of the right side of the heart and its communicating vessels. The immediate cause of this distention is generally considered to be a paralysis of the right side of the heart and the consequent accumulation of blood. It is to be remembered, however, that death from suffocation may take place without any decided distention of the vascular territory referred to, as when anæmic persons die from suffocation. It seems further not unlikely that the heart may contain less blood in those cases where it continues to beat after the action of the respiratory muscle has ceased. The accumulation of blood in the venous canals, including the pulmonary artery, is a direct result of the distention of the right side of the heart. The coronary veins often project as prominent, rounded cords, the pulmonary artery and its branches are dilated, and the lungs themselves frequently appear gorged with blood from the filling of the smaller vessels within these organs.

This venous engorgement of the lungs, though perhaps occurring in the majority of cases, is still by no means a constant appearance. When present its origin is most probably due to violent inspiratory efforts, which, if accompanied with a closure of the air-passages, necessitate an aspiration of venous blood into the thorax, and its entrance into the lungs, supposing the heart to be at work. It is therefore apparent that the engorgement of the lungs is more likely to occur when death immediately follows a closure of the air passages, and especially when the closure takes place towards the end of expiration, at which time there is comparatively little air in the lungs and more room for blood.

If, however, the cause of suffocation is an embolism of the pulmonary artery, the entrance of venous blood is prevented, while air is allowed free admission. In such cases of suffocative death the lungs may even be anæmic. So when the suffocation is connected with œdema of the lungs or with the free admission of water through the bronchi, as in death from drowning, a less quantity of blood would necessarily be present than when the blood-vessels were more capable of distention.

Other appearances met with in the air passages present a relative value: these are the injection of the vessels of the larynx, trachea, and bronchi, emphysema, sub-pleural ecchymoses, and the form of the epiglottis.

The injection of the blood-vessels is evidently largely due to the same causes which produce the venous engorgement of the lungs, and requires no further consideration. The sort of emphysema which is of especial value is the interstitial variety, where air bubbles are present within the connective tissue of the lungs, the walls of the air passages having been ruptured by the violent respiratory efforts. Groups of alveoli may also be widely distended, and then appear somewhat prominently when the surface of the lung is examined. The latter condition may be present when death is occasioned in other ways than by suffocation; the former is very commonly absent; and both must not be confounded with the presence of gas in consequence of putrefactive changes. The ecchymoses have attracted great interest, and have generally been attributed to extreme pressure within the walls of the smaller vessels, consequent rupture, and resulting minute hæmorrhages. Of late years stress has been laid upon their origin, in part at least, through vaso-motor disturbances, spasmodic contraction of certain vessels, and collateral hyperæmia of others. As is well known, these ecchymoses may be found not only beneath the pleura, but also in the pericardium, tracheal and gastric mucous membranes, and more rarely in the peritonæum and elsewhere. It has been supposed that they were the result of suffocative death from violence, a view at present to be regarded as obsolete, from the accumulated evidence in opposition. It may also be said of these ecchymoses that when present they are of value; when absent, death from suffocation may still have taken place. Even when present they merely represent a state, minute hæmorrhages, which may arise in consequence of injuries, or of various diseased conditions attended with an abnormal relation of the vascular walls to their contents.

It is stated by Orth that in all forms of death from suffocation the epiglottis undergoes a constant change in form, manifested by an approximation of its edges, giving rise to a wedge-shaped appearance. I find no mention of this peculiarity in the most recent works on medical jurisprudence, and have no personal experience which permits me to form an opinion as to the value of this sign.

Additional evidence of death from suffocation is to be found in the venous engorgement of the brain, liver, and kidneys, one or more of which organs very generally present appearances indicative of the presence of an unusually large quantity of blood. The conditions which prevent an emptying of the right heart tend to cause an accumulation of blood in these organs. The importance of the recognition of the degree of injection of the vessels of the brain in all cases is apparent, and the desirability of examining the brain before the thorax and abdomen are opened is well recognized. In general, when death results from suffocation a bluish marbling of the brain and unusually prominent and abundant *puncta cruenta* are appearances to be sought for. They are sometimes wanting, however, and their absence does not exclude the possibility in question. An œdematous brain may be present in cases of suffocative death, and is usually associated with a diminished vascular injection. It has been demonstrated experimentally that an actual anæmia of the vessels of the pia mater may immediately precede death from suffocation, and observation with the ophthalmoscope has shown diminished contents of the retinal vessels during the dyspnœa antecedent to death.

Finally, the injection of the liver and kidneys remains as one of the constant appearances, and is essentially due to the engorgement of the right side of the heart. The injection of the kidney is perhaps the more striking as but little blood oozes from this organ during its examination. From the liver, on the contrary, a considerable quantity escapes through the cut inferior vena cava before the organ is removed, supposing the usual method of examination to take place.

In conclusion, brief mention may be made of certain external appearances which have attracted more or less attention, but which are to be regarded as of wholly secondary importance. First among these is the livid hue of the skin, especially that of the face, though prominent elsewhere as unusually large and numerous hypostatic spots. Ecchymoses are also occasionally met with, and stress has been laid upon the protrusion of the eyeballs. These modifications in the distribution of the blood are subject to so many variations, including entire absence, that but little weight can be attached to them. When present they are apt to be associated with diffuse staining from early putrefaction, which becomes more extensive when the general conditions favoring rapid putrefaction are present, as warmth, moisture, free access of air, and the existence of some infective disease. The accumulation of much blood at the surface of the body and the occurrence of suffocation in many relatively healthy individuals, especially full-blooded ones, are the important causal factors explanatory of early putrefactive changes in these cases of suffocative death.

The position of the tongue, between or behind the teeth, is of comparatively little consequence, owing to the irregularity of its presence between the teeth in death from suffocation, and to the fact that this position is assumed when death is the result of other conditions.

Another appearance frequently mentioned is the presence of a scum or froth over the mouth or nostrils. This is evidently due to the escape from these openings of a more or less viscid fluid, in which numerous bubbles of air are contained. As the fluid portion evaporates a crust is left adherent to the skin. This appearance is often seen in cases of death from drowning, though also met with when death results from natural causes, and is most commonly observed during warm weather. It merely indicates that mixed fluid and air or gas are escaping from natural canals of the body, the escape being promoted by putrefaction of the abdominal contents, particularly of those in the intestine. This froth may proceed from the lungs or stomach, or from both. In death from drowning the trachea and bronchi contain a considerable quantity of air and water, the latter readily becoming viscid from its admixture with mucus or albumen. As drowning most commonly takes place in summer, when the temperature favors early putrefaction, the contents of the lungs are forced out by the abdominal distention. In death associated with œdema of the lungs the same phenomenon may be observed.

The contents of the stomach, likewise, if fermenting or putrefying with the abundant formation of gas, may escape outwards through the œsophagus, — in part from the intestinal pressure, in part from the volatility of the gases produced. The recognition of this possibility of the escape of the contents of the stomach after death is of considerable importance, as it is possible for a portion of them to enter the lungs from above, and there give rise to changes which have been mistaken for diseased conditions. Further, when the group of appearances suggests death from suffocation the finding of particles of food in the air passages might be considered as giving evidence of the production of suffocation through the inhalation of the contents of the stomach. In the post-mortem process the food is usually in a state of very fine division, whereas coarser particles are apt to be found when the inhalation has taken place under other circumstances.

It is evident, therefore, from the previous consideration that there is no absolutely characteristic appearance in death from suffocation, but that the group of appearances mentioned offer strong presumptive evidence. Dark liquid blood; vascular engorgement of the right side of the heart, the lungs, liver, kidneys, and brain; injection, even extravasations, of the mucous membrane of the larger air passages; sub-pleural and sub-pericardial ecchymoses, with perhaps the wedge-shaped appearance of the epiglottis, form the series of changes, most of which will be found. The more sudden the death from suffocation, the more distinct are these appearances.

The diagnosis of death from suffocation being made, it remains for the examiner to bear in mind the three groups of causes, and his attention can then readily be directed to that which is of especial consequence in the determination of death from violence. The causes of suffocation important in this connection are those whose action prevents the admission of atmospheric air into the lungs. These may evidently act from without, as in cases of compression of the trachea or thoracic walls, and from closure of the mouth and nostrils; or from within, as in drowning or the admission of foreign bodies. The suffocation resulting from violence may also occur when serious injuries have been inflicted either upon the thoracic walls as perforating wounds, or upon the nervous centres as in cerebral injury.

The presence of additional evidence leads to the prime cause, and this evidence necessarily varies according to the nature of the case.

◆

RARE CASES OF STRANGULATED HERNIA.

BY GEORGE W. GAY, M. D.,
Surgeon to the Boston City Hospital.

I. *A Case of Strangulated "Recent" Femoral Hernia in a Man; Reduction by the "Minor Operation;" Recovery.* — Mr. X., a policeman, aged forty-four years, noticed a small lump in the right groin, and experienced a sense of uneasiness in that region on Thursday, October 5, 1876. Friday evening the pain and restlessness were so severe that he sent for his family physician, Dr. O. W. Doe, who at once recognized the serious condition of the patient, and took prompt measures for his relief.

We saw the patient about thirty hours after the commencement of the symptoms. He was restless and had some nausea, but no vomiting as yet. There was a tense, painful tumor of the size of an English walnut in the right groin, just below Poupart's ligament, and over the saphenous opening. Coughing gave an indistinct impulse to the tumor; it was free from induration, and somewhat movable. None but small, unsatisfactory dejections had been passed since the affection began. The patient had never had a rupture, and the cause of the present one seemed to be a severe cough of a few weeks' duration.

Ether having been administered, a vertical incision about two inches long was made over the tumor, and on dividing the skin and superficial fascia the hernia, inclosed in the fascia propria, was readily seen protruding from the saphenous opening. A grooved probe was then passed into the crural canal behind the tumor, and swept round to the front underneath Hey's femoral ligament. Slightly dividing this structure and making gentle taxis upon the sac, its contents suddenly and easily slipped back into the abdominal cavity. The sac was replaced very readily, the wound closed with silk sutures, and a compress and bandage applied.

On the day following the operation the bowels moved freely, and there was some vomiting. The pulse on the third day was 120, and the temperature 103.4° F. Although this patient had no well-marked peritonitis, yet there was considerable local disturbance about the wound, and he was in a precarious condition for ten days. After that time he improved rapidly, and was out in about a month, but did not resume work for two months. He is now wearing a truss, has no rupture, and is apparently well.

II. *Strangulated Femoral Hernia, consisting of Bowel and Omentum; Operation; Recovery.* — J. B., forty-eight years of age, a thin, spare man, entered the hospital August 16, 1877. A small tumor had existed in the right groin a year or more, varying a little at times in its size, but never wholly disappearing. There had been no symptoms of strangulation until five days previous to his entering the hospital, when he was seized with abdominal pain, vomiting, hiccough, and constipation. The patient had walked to the hospital, was not under the influence of opiates, and was suffering little pain.

Over the right saphenous opening was a small, hard, reddened tumor, which was irreducible, and gave little impulse on coughing. The abdomen was tympanitic and somewhat tender. Pulse 74; temperature 98° F.

Although this patient's symptoms were not urgent at the time of his admission to the hospital, yet they evidently had been so two days before. It was decided, in a consultation, to explore the tumor and ascertain its character, and be governed accordingly.

The patient having been etherized, the sac was opened and found to contain a knuckle of intestine concealed in a mass of adhering omentum. Both structures were of a deep maroon color. On dividing the constriction at the crural ring the bowel was easily returned; the omentum was left in the sac, a ligature being placed around a portion of it. The wound was partially closed with sutures, and a bandage applied.

Five hours after the operation the patient was delirious and very cyanotic all over. Pulse 144; temperature high. There was some diarrhœa, and he had vomited a yellowish liquid which was very offensive and resembled the so-called "stercoraceous" substance so commonly ejected in the later stages of strangulated hernia. His condition at this time was extremely unfavorable. He was ordered small doses of opium and tincture of aconite root every hour.

The next morning the patient was conscious, and free from pain. Pulse 96; temperature 99.5° F. The cyanosis had entirely disappeared. Diarrhœa and vomiting stopped. Taking nourishment well.

Aside from retention of urine the convalescence was steady and satisfactory. A yeast poultice was applied to the ligated omentum until the slough came away.

The wound was healed in six weeks, and the patient was discharged in two months, wearing a truss with a water pad, in a very comfortable condition.

III. *Strangulated Inguinal Hernia (Omental) in a Woman; Operation; Recovery.* — On Saturday, August 18, 1877, we were asked by Dr. J. E. Walker to see Mrs. ——, a Dutch woman, aged thirty-one years, who gave the following history of her affection: The previous Tuesday she walked a good deal at the sea-shore, and got very tired; Wednesday she felt poorly, and at night was wakened by a severe pain in the abdomen; Thursday she noticed for the first time a small lump in the left groin.

Over the external abdominal ring on the left side was a single, tender, movable tumor the size of an English walnut. It was irreducible, free from induration in the cellular tissue, and gave little if any impulse on coughing. The ring appeared to be obstructed by the tumor. There had been but one stool since the affection began, and she had vomited once. The patient was anxious, restless, and suffering, so that it was with difficulty that she could stand or walk.

Ether was administered, and after a rather tedious dissection, due to a large amount of fat and the general obscurity of the parts, a well-defined sac was opened, and found to contain a mass of dark-brown omentum the size of a pullet's egg. It extended along the inguinal canal into the abdomen, and was pretty firmly attached to the walls of the sac. All constriction was removed by slightly enlarging both rings, and the hernial contents were allowed to remain *in situ*. The wound was left open and covered with a light compress. She was ordered opium suppositories every four or six hours, as required, liquid diet, and catheterization.

The patient had some peritonitis on the left side, as shown by localized tenderness, swelling, and tympanites, with a temperature of 102.6° F., and a pulse of 130. The bowels moved on the fifth day. A portion of the omentum sloughed away. The wound closed in six weeks. She has worn a truss since the first of November, with no signs of a recurrence of the affection.

Fortunately, ruptures like that reported in the first case are as rare as they are dangerous. The femoral rings and canal are so narrow and unyielding that strangulation is very apt to follow shortly the descent of the viscus. The favorable result in the above case was largely due to the fact that the diagnosis was made early, the taxis was brief and gentle, the operation was performed before the symptoms became severe, and the sac was not opened.

It will be noticed that the incision in this operation did not even extend through the fascia propria. Sir Astley Cooper advised the opening of that membrane in all cases, while later writers, as Mr. John Birkett and Mr. Bryant, advise us to enlarge the crural ring before dividing this fascia, and to try to reduce the rupture. Should this not be successful, the fascia is to be divided and the ring enlarged again. This failing to let the rupture return to its place, then the sac is to be opened, the constriction relieved, and the hernia reduced.

The "minor" operation, as it is called when the sac is not opened, has had its "ups and downs" ever since it was introduced to the profession by Petit, more than a hundred and fifty years ago. Its advantages are that the cavity of the peritonæum is not opened, that there is little danger of peritonitis or of wounding the bowel. Its disadvantages are that the rupture may be returned without the strictures having been removed, when the result would probably be fatal; or a gangrenous mass might be returned to the peritoneal cavity, which had better remain outside.

The operation, as regards danger, is simply that of taxis complicated with a superficial wound not involving the sac. It is adapted more particularly to recent femoral herniæ, with the stricture at the saphenous opening. In such cases the operation is very successful.

In performing this operation there are two points of great importance to be borne in mind. After dividing the skin, superficial fascia, and fat, the rupture covered with the fascia propria at once presents itself. It is to be remembered that the proper sac of the hernia lies *beneath* this fascia, and is separate from it. Again, on manipulating the tumor, after the stricture has been divided, great care should be taken to allow the *contents* of the sac to recede into the abdomen before the sac itself is replaced; otherwise we can never feel sure that the constriction has been removed.

The second case was without doubt an omental hernia originally, complicated by the descent of the intestine on, or shortly before, the advent of the symptoms of strangulation. These cases of omental hernia in the femoral region are not only rare, but oftentimes their diagnosis is exceedingly difficult. We have under observation at the present time the following case: —

IV. A gentleman about twenty-eight years of age, a lawyer, first noticed a small bunch in the right groin after great fatigue from prolonged walking at the Centennial Exhibition. The appearance of the affection was preceded by an ordinary attack of indigestion, as he supposed, to which he is occasionally liable.

The tumor was seen by the writer three or four days after its first appearance. It was an inch and a half in diameter, irregular, firm, irreducible, and thought to have an indistinct impulse on coughing. It was movable to a moderate extent, but evidently had a firm attachment at its base. The tumor was situated over and blocked up the saphenous opening in the fascia lata. Its manipulation was attended by a peculiar distress in the lower part of the abdomen. There was no induration of the surrounding cellular tissue, nor affection of the neighboring glands; no injury or lesion of the foot and leg, and no venereal disease.

The diagnosis was an omental femoral hernia: a hernia, because the history, appearance, and symptoms did not coincide with those of an enlarged gland, an abscess, a growth, a cystic tumor, an aneurism or varix, or any other affection ever found in this region; omental, because of the uneven surface of the tumor, its imperfect impulse, and the absence of symptoms of obstruction and strangulation.

Dr. Fifield has described the dissection of an omental hernia to which our case would seem to bear a strong resemblance.[1] In his subject, the end of a long rope of omentum passed through the crural canal, and formed a small tumor over the saphenous opening. It was strongly adherent to the sac. Although the omentum elongates and accommodates itself to the new condition of things in these affections, yet there must always remain more or less danger of inflammation and strangulation. "Irreducible herniæ are treacherous things."

The third case reported above, as well as the second, goes to prove the soundness of the old rule, that an irreducible tumor occurring in a region subject to hernia, and accompanied by pain, vomiting, and constipation, demands an exploratory operation. Should the affection prove to be other than a hernia, which, by the way, it very seldom does, no great harm would be done; whereas, in case of a rupture, the operation might save life. At all events it would give the patient the very best chance for recovery.

---

[1] Vide JOURNAL, March 4, 1875, page 255.

RECENT PROGRESS IN THE TREATMENT OF DISEASES OF THE THROAT.

BY F. I. KNIGHT, M. D.

Bilateral Paralysis of the Posterior Crico-Arytenoid Muscles. — This affection is so serious, though fortunately comparatively rare, that we feel that our readers will be glad to see the full reports which follow of cases and discussions upon them. Though rare, a case may happen to any practitioner. The pathology is still little understood. Dr. B. Fränkel[1] says that, without noticing the strictures which may be due to spasm, the inspiratory stream may find the glottis closed (1) in bilateral paralysis of the posterior crico-arytenoid muscles, (2) in diseases of the cartilage or articulation, (3) in perverse action of the muscles of the glottis (a cause not observed before). The appearances in the first class of cases have been often described. Fränkel contributes four cases. He says that the posterior crico-arytenoid muscles evidently have nothing to do with the fixation of the glottis for phonation, as has been stated by some authors, for this takes place perfectly in case of paralysis of the above-mentioned muscles. One of his patients could produce high falsetto notes. (2.) Diseases of the cartilages and joints producing this position of the glottis arise as perichondritis of the cricoids and arytenoids, the most frequent cause of which is an infectious disease, especially typhus. Phthisis, which is the most common cause of perichondritis of the larynx in general, seldom leads to a permanent approximation of the vocal cords, it usually affecting the region of the vocal processes; and although perhaps producing swelling and obstruction, it does not cause inspiratory approximation of the vocal cords. In cases of typhus, however, the perichondrium of the posterior surface of the cricoid is frequently involved, and the insertions of the posterior crico-arytenoid muscles are destroyed, or the crico-arytenoid articulations themselves may be diseased. The author introduces a case in which the diagnosis from simple paralysis was made easier by changes in the relative position of the arytenoids. The sound showed that there was no anchylosis, so it was considered to be a case in which the attachments of the muscles were affected. Fränkel gives the following example of the third class of cases: A nurse, twenty-eight years old, who had had typhus in the army during the Franco-Prussian war, but had made a good recovery, took diphtheria in the hospital in 1874; it affected the pharynx, and probably the larynx also. From the effect of this he never completely recovered; hoarseness, dyspnœa, and stridulous inspiration remained. The diagnosis of paralysis of the posterior crico-arytenoids had been made. The hoarseness grew better gradually; the stridor and the dyspnœa, however, persisted in varying intensity.

---

[1] Deutsches Zeitschrift f. prakt. Med., 6 u. 7, 1878; Schmidt's Jahrb., 1878, No. 4.

Fränkel saw the patient in March, 1877. There was evident stridor with every inspiration; no cyanosis. He instinctively avoided any quick movements, as they increased the stridor. He was not hoarse, but spoke with a weak, interrupted voice; that is, after a few words he would make a pause, during which occurred a stridulous inspiration, and then would come a few more words, and so on. The patient was anæmic, weak, and tired from disturbance of sleep. The examination with the laryngoscope showed that the glottis closed with every inspiration and opened with expiration. During inspiration the cords lay close to each other, and were drawn down and set into visible vibrations. There could evidently no longer be a question of paralysis of the posterior crico-arytenoids. On phonation, which occurred mostly during expiration, the vocal cords flapped asunder, and quite a normal (?) voice was produced. At the end of respiration the patient usually ceased speaking, the vocal cords separated again, and at the beginning of inspiration were again approximated. The left side and posterior wall of the larynx were anæsthetic. Sensation was also diminished to a less degree on the right side. Pressure downward on the pomum Adami increased the stridor and dyspnœa; also on the cricoid cartilage. The same effect was caused by electricity and bromide of potassium. The subcutaneous injection of morphia afforded "considerable relief," but increased the stridor to a great degree. There was no possibility of malingering in this patient, although Fränkel, by autolaryngoscopy, convinced himself that one can by practice voluntarily produce such perverse movements of the vocal cords. The affection in this case could not be considered hysterical.

Guttmann, in the discussion which followed this paper, said[1] that he had seen two cases of bilateral paralysis of the posterior crico-arytenoids in hysterical patients. A cure took place in a short time without tracheotomy. Waldenberg remarked that paralysis of these muscles occurred much more frequently than would appear from the few cases published.

Dr. Felix Simon read a paper at the meeting of the clinical society of London, on the 12th of April, 1878,[2] on bilateral paralysis of the posterior crico-arytenoid muscles, and presented a patient with the following history: He was a railway inspector, aged thirty-two, who had enjoyed good health till two years ago. Having been subject to severe colds, he was one day seized with an attack of violent cough, followed by slight dyspnœa. Although the symptom disappeared quickly at that time, it has since then appeared more and more frequently. At the present time the breathing is somewhat impaired permanently. Cough, with consequent deep inspiration, is sure to bring on a more or less severe attack of dyspnœa. Lately some other symptoms have appeared. The patient is drowsy; he complains of weakness, itching, numbness, and fibrillar convulsions in both legs, especially in the left, and sometimes of slight incontinence of urine. There is slight ptosis of the left eyelid. The left pupil is smaller than the right, the left naso-labial fold more distinctly visible, and the left oval angle a little lower than the right. His gait is uncertain. The laryngeal symptoms were also demonstrated (permanent slight inspiratory dyspnœa, which was much increased when the patient was told to cough; easy respiration and unimpaired voice), and Dr. Simon described the laryngoscopic appearances of the glottis (rima glottidis much smaller than normal; complete approximation of the vocal cords during phonation; if deep inspiration be attempted the cords separate only a very little from each other, and return at once to their former close approximation. The act of separation is effected, not by a continuous movement, but by several oscillations). This case was the sixth observed within the past ten years by Dr. Simon at the hospital for diseases of the throat. All the patients were men between thirty and sixty, and, with one exception, they had suffered between three months and two years before coming to the hospital. The exception occurred in a case of undoubted functional paralysis of the posterior crico-arytenoid muscles, similar to the functional paralysis of the adductors of the vocal cords, so often seen in hysterical women. There was generally no serious difficulty in distinguishing between this disease and spasm of the glottis; but it was, in some cases, quite impossible to make during life a differential diagnosis between paralysis of the posterior crico-arytenoids and anchylosis of both arytenoid cartilages. With regard to ætiology, one of the six cases resulted from functional disorder, one from compression of both recurrent nerves by firm connective tissue (proved on post-mortem examination), two from catarrhal influences, and one from perichondritis (proved post mortem). Dr. Simon had looked upon the other nervous symptoms, above mentioned, as very interesting, but merely accidental coincidences; for the long time which had elapsed between the onset of the paralysis and that of the other symptoms, as well as the integrity of the other organs supplied by the pneumogastric nerve, seemed to show that there was no connection between the two groups of symptoms. But Dr. Hughlings Jackson, who had seen the case, thought that there was no doubt that the paralysis was due to central disorder, probably to a wasting process in the medulla oblongata. One case of this kind had lately been described by Penzoldt. Prognosis seems to be favorable in cases of functional paralysis; in all others it is at least doubtful. With regard to treatment Dr. Simon said that functional paralysis requires only constitutional treatment, owing to the complete failure of all other remedies experienced here and abroad in recent cases of purely neuropathic character; the direct application of electricity to the paralyzed muscles might be tried, although all observers agree that it is not so useful as in other paralyses. [Cases of paralysis of the posterior crico-arytenoid muscles, in which recovery has taken place, and which may therefore possibly have been functional, so called, are so very rare that any general statements regarding efficacy of treatment seem unwarranted. — REP.] Dr. Simon says that no percutaneous application should be tried, inasmuch as the irritation of the healthy fibres of the vagus supplying the antagonists would lead simply to stronger contraction of these and still more marked narrowing of the glottis. In accordance with all other observers, the early performance of tracheotomy was recommended in all the more developed cases. If performed in time it will not only save the patient's life, but will also restore him to health [of course not if the paralysis proceeds from a central lesion, as supposed in Simon's case. — REP.], with the only disagreeable modification that in all probability he will have to wear his tube permanently.

---

[1] Berl. klin. Wochen., No. 10, 1878.

[2] Lancet, April 20, 1878.

The president, Mr. Callender, said that, granting that the disease exists, it was more easy to understand it to have a local than a central origin. It seemed difficult to suppose that so complex a nerve as the vagus could have its fibres so differentiated that a few only were materially altered by central disease. Dr. D. Powell thought the case would throw light upon the cause of dyspnœa in cases of pressure causing paralysis of the laryngeal muscles. The dyspnœa was clearly inspiratory, and he would suggest that it was due to the atmospheric pressure sucking the cords together, as he had himself noticed in a case of pressure on the recurrent nerves. It was surprising that the patient had no pulmonary signs. It would go hard with him if catarrh supervened, and Dr. Powell asked Dr. Simon whether he contemplated an early operation to avert such an untoward result. Dr. Simon said that in one case examined post mortem there was chronic pneumonia; in another the lungs were only slightly congested; in the literature of the subject no mention was made of disease of the lung. He concurred in the opinion that operative measures should be had recourse to as early as possible.

(*To be concluded.*)

◆

LOGAN ON THE PHYSICS OF THE INFECTIOUS DISEASES.[1]

A CONSIDERABLE portion of this book is occupied with an account of the natural features, climatology, and sanitary condition of the western coast of

---

[1] *Logan on the Physics of the Infectious Diseases: Comprehending a Discussion of certain Physical Phenomena in Connection with the Acute Infectious Diseases.* By C. A. LOGAN, A. M., M. D. Chicago: Jansen, McClurg & Co. 1878. Pp. 212.

South America, and contains much useful and interesting information. It appears that epidemic diseases are either unknown in those regions, or are greatly mitigated in their effects. This the author accounts for by a peculiar "electric energy," which "operates to decompose the infectious molecule of exotic diseases and prevent their development," and which is derived from the influence of the chain of the Andes and the trade-winds upon the temperature and rainfall, together with the prevalence of earthquakes in certain districts. Small-pox, however, is an exception, being very common in Valparaiso, where it is often severe and fatal. It is stated that vaccination is inefficient as a preventive, and that one attack is non-preventive against another, many persons having the disease three times and even four; but the author cites no observations of his own to confirm these statements, except that he had seen those who claimed to have had repeated attacks.

Under the head of the Physics of Specific Causation the author gives a summary of certain functions of the nervous system, with speculations of his own, which if they are suggestive are too fanciful to be readily adopted. He notices some of the theories of contagion, especially the bacterial hypothesis, which he thinks is not founded on truth. While the original producing agent of an infectious disease may be of animal or vegetable character, or possibly inorganic, the contagium of a type disease "does not consist of vegetable germs but is a product of a preceding type action," capable under favoring circumstances of inducing the typical action in a healthy system. He is satisfied that though "the touchstone of time may level his theories to the dust" there are principles "which neither time nor authors can disturb; as there are also facts underlying the structure the author has attempted to build which must remain immutably fixed through all the coming cycles of the future, and cease to be facts only when the wreck of matter and the crash of worlds shall announce the end of present laws and the termination of all existences resting upon them."

ATLAS OF SKIN DISEASES.[1]

THE title of this work misleads one. It is a treatise on nævus vascularis and psoriasis, illustrated by colored plates of cases. They are of the same size as the book, octavo, but are intended to reproduce the diseased appearances of the skin, in these affections, of life size. The author believes that this innovation in form is an improvement upon ordinary atlases, because they are generally so large that no one knows what to do with them. The present part contains four plates, two of nævus of the face, one of them interesting on account of a molluscous new growth upon the affected parts; the other two represent a man with psoriasis of the face before and after treatment. The execution of the first two is good; that of psoriasis is bad; and the last picture, a healthy face after recovery from the latter affection, wholly useless.

The value of the book lies chiefly in the text. The two diseases treated of are those about which the author has recently written at considerable length,[1] and little that is new is presented. In the treatment of nævus he does not represent the cure by scarification as so simple a matter as originally, but admits that the process is tedious, and that "in all cases ten or a dozen repetitions of the scarification will be requisite to produce any considerable alteration of the color of the skin." Instead of the cataract needle first advised he uses a set of parallel scalpel blades firmly fixed in a handle. He has also much to say about treatment by stippling with sets of needles heated to the red point in a spirit lamp. They should be thrust into the skin to the depth of one sixteenth of an inch, and this process has also to be repeated. It leaves punctate scars, which are less disfiguring than those of the galvanic cautery.

---

[1] *Atlas of the Diseases of the Skin.* By BALMANNO SQUIRE, M. B. London: J. & A. Churchill. 1878.

The author states that future numbers of the work will appear occasionally.

HOFF ON HÆMATURIA.[2]

"Hæmaturia, from hæmato, blood, and ureo, to urinate"! . . . . So reads the first line of this little book. Such a beginning promises more amusement than the sequel will be found to afford. Those who read on in quest of further entertainment will be somewhat disappointed.

FOREIGN PRACTITIONERS IN FRANCE AND ENGLAND.

In view of their nomadic habits and the large numbers of Americans and English whom business, pleasure, or a search for health cause to travel or sojourn in foreign countries, for a longer or shorter time, legislation in other countries limiting the right of foreigners to practice medicine has an especial interest, and for us as individuals, whether medical or lay, hardly less than for the English. A good deal of excitement was created in England last year by the threatened passage in France of a law withdrawing from the Minister of Public Instruction the power which he has possessed for many years, and which under the empire was exercised with extreme liberality, of granting to foreigners permission to practice, and subjecting them instead to the usual examinations of a student coming up for a degree. The English government went so far as to direct its representative to remonstrate with the French government, and has followed this up in their late Medical Law Amendment Bill by a renewed protest, and a proposition of mutual liberality toward "trustworthy" foreign diplomas, at the same time calling attention to the liberal provisions in regard to foreign practitioners contained in their own bill. The bill at present before the French legislature is a modification of that of last year, but still admits of being applied with sufficient stringency to satisfy the most greedy of French practitioners, and is naturally unpalatable to the English. It remains to be seen of how much value the English protest will be on this point; the *quid pro quo* which she offers in liberality is of very little, there being comparatively so few Frenchmen, either sick or well, outside of France.

---

[1] On Port-Wine Mark, etc. London. 1876. On the Treatment of Psoriasis by an Ointment of Chrysophanic Acid. London. 1878.

[2] *On Hæmaturia as a Symptom of Diseases of the Genito-Urinary Organs.* O. Hoff, M. D. Philadelphia: Lindsay and Blakiston. 1878. Pp. 50.

As we ourselves are already so nearly affected by any legislation restricting the practice of medicine by our countrymen abroad, as with the increasing tide of foreign travel we are likely to be more so, and as it may become the duty of our government to make its voice heard in behalf of American citizens, it is worth our while to observe the present tendency of public and professional feeling in England and France as indicated in these bills.

Since the German war the permission to practice in France has been granted very rarely and with great difficulty. This is to be attributed partly to the dislike of the foreigner as a bread winner, which then arose, and partly to the increasing value of the *clientèle.* The provisions of the present bill are substantially as follows: —

Foreign medical men can obtain from the Minister of Public Instruction a remission of the bachelor's degree upon recommendation of the medical faculty, before whom they must pass a preliminary examination. In order to practice within the limits of the republic they must pass two examinations before a government faculty, the one theoretical, the other practical, the forms and substance of these to be determined by the government. This simply gives the right to practice; a second article forbids the assumption of the title of doctor unless obtained in the usual way from a French medical faculty. Then follow suitable penalties. Such restrictions strike us as unnecessarily illiberal, and in marked contrast to the boasted French hospitality, which should not find itself at ease only when a harvest is to be reaped.

The following is the substance of the proposed legislation in the United Kingdom: A foreigner who has practiced medicine at least ten years abroad, upon satisfying the general medical council that he has obtained and still holds a recognized medical diploma granted in a foreign country, and is of good character, and upon payment of the registration fee, shall be entitled, without examination, to be registered as a foreign practitioner in the medical register. A person holding a diploma not recognized may appeal to the privy council. These restrictions seem to us ample for the protection of the public, and more in accordance with the spirit of the age and the solidarity of social interests than those in the French bill, — which do not savor of a republic. The fact that in the United States there are no restrictions whatever to the practice of medicine, either for natives or foreigners, would perhaps not strengthen its position in case our government should find it necessary to advocate the medical interests of its citizens abroad.

MEDICAL NOTES.

— By private advices we are informed that Dr. Lautenbach, who has been such a valuable worker in the physiological laboratory of the University of Pennsylvania, has gone back to Germany to his old position in Schiff's laboratory. Prof. H. C. Wood will hardly find another Lautenbach.

— An inspection of the Board of Health report of the deaths and interments in Philadelphia of the week ending July 20th shows far less fatality resulting from the great heat than many persons feared. The average was not so large by seventy as that for the preceding week, and not so great by eighty as the total for the corresponding week last year. The whole number of deaths was but three hundred and fifty-eight, one hundred and seventy-eight being infants under two years of age. There was but one death from sunstroke.

— The Pennsylvania College of Dental Surgery, owing to the increase of the terms of regular session and the advances made in methods of instruction, have been able to make an arrangement with the Jefferson Medical College through which students who desire to do so can obtain the two degrees of dentistry and medicine in three instead of four years, as heretofore.

— A London exchange informs us that the distinguished physiologist, and a leading member of the Fortschritt party, Professor Virchow, has decided on leaving active political life, and has addressed the following words to his late constituents: "There are people who say I do not wish to go back to the Reichstag out of pure dislike to the empire. Certainly I am one of those who combated the present imperial laws at their creation, as being inadequate and injurious. But now that they exist I resign myself to the hard reality, and stand as firmly as any one by the emperor and the empire. I cannot accept a seat in the Reichstag simply because it would be incompatible with my scientific labors to do so, and would inevitably lead to my abandoning them altogether. Perhaps you may think me a good enough politician, but for myself I think I am a better *savant*. I am convinced that in this, my real province, I can be more useful than in the Reichstag."

— At the last congress of German surgeons W. Busch announced his success in the treatment of burns by the Lister methods.

— When not caused by constitutional disease, cracked nipples, says the *Progrès médical*, should be washed with the tincture of benzoin. They heal in five days. This treatment does not interfere with lactation.

— Dr. Wannebroucq recommends the treatment of internal hæmorrhoids by forcible dilatation of the sphincter ani. "This procedure gives immediate relief, and effects a permanent cure without other interference."

— Martin, of Berlin, reports another successful case of splenotomy. The record now is ten cases, three recoveries.

— In the *Brain* for April, Dr. A. Hughes Bennett reports a case of cerebral tumor, with symptoms simulating hysteria, and which had been diagnosticated as aggravated hysteria by one of the most distinguished authorities in nervous diseases in Europe. The symptoms were as follows: a sudden attack of blindness and deafness, from which the patient recovered in a few days. Three months afterwards a second attack of permanent blindness, accompanied with continually increasing deafness and paraplegia of the lower limbs. These symptoms lasted four months, when the patient became unconscious and delirious, and died in a few days. Ordinary hysterical symptoms were manifested during the entire period of the disease. A tumor as large as a hen's egg was found in the substance of the right hemisphere.

— By means of a glass tube in which freely oscillated a column of liquid

M. Oudin was enabled to study the cerebral pulsations of a man who had blown off the vault of his cranium without destroying life. Oudin found these pulsations to be synchronous with those of the heart, and influenced by respiration. His opinion is that the rise and fall of brain tissue due to respiration results from a compression of the venous sinuses of the body at large.

— In the year 1877 eleven hundred and forty-two horses were devoured in Marseilles. These figures indicate a slow but steady increase of the use of horse-flesh in that city.

— Touching Battey's operation the Paris *Medical* says: "The operation is not only rash, but is to be condemned for its boldness. We cannot approve the conduct of a surgeon who thus plays with the life of his patients, especially when we remember the gravity of deep lesions of the peritonæum. We are happy to state that no French surgeon has followed the footsteps of the American."

— Dr. Robert Gardiner Hill, who is identified in England with the abolition of the rougher and more barbarous treatment of lunatics which prevailed early in this century, has recently deceased. — Amussat, who wrote largely on galvano-caustic surgery, is dead. — The Pathological Institute in Leipzig has been notably improved in its accommodations and general system under Professor Cohnheim. — Edwin T. Darby, D. D. S., of Philadelphia, removed an exostosis from the nasal passages of a patient of Dr. J. Solis Cohen by means of the burr of the dental engine. The operation was a success, Dr. Cohen confessing that with the usual surgical appliances the removal of the tumor would have been impracticable. In the *Medical and Surgical Reporter* for July 13th details will be found. — Dr. Lewis A. Stimson has been appointed professor of pathological anatomy in the University of New York. — Dr. F. T. Roberts, author of the Handbook of Medicine, has been nominated professor of materia medica and therapeutics in the University College of London.

— It is said that Dr. Wilson Fox will succeed Dr. Erasmus Wilson as professor of dermatology in the Royal College of Surgeons.

— From a Chicago correspondent we learn that the old staff of the Cook County Hospital has been turned out, and a new staff appointed, by political pressure. Formerly, without exception, nominations to the staff have come from the medical corps of the hospital.

LETTER FROM NEW YORK.

MR. EDITOR, — At the May meeting of the Medical Society of the County of New York the following resolution was recommended by the Comitia Minora for adoption by the society, after it had lain on the table for one month: —

" *Resolved*, That strict adherence to the proposition '*similia similibus curantur*,' in the selection of medicines, and the rejection of the 'aids furnished by anatomy, physiology, pathology, and organic chemistry,' constitutes exclusiveness.

"Those who do not reject the aids referred to, and who do not prescribe homœopathically, when better ways are known to them, are not exclusives. The only exclusives in this county known to the Comitia Minora are a minority of the Homœopathic Medical Society of the county, and the members of the Eclectic Medical Society, the constitution of whose state organization excludes the employment of "antimonials, mercurials, and venesection.'"

The object of the resolution was to "open the door" for consultation with the so-called liberal homœopaths, and its origin was due to the fact that the president of the society had received a letter from a member inquiring whether, in the opinion of the Comitia Minora, a certain resolution passed at a meeting of the Homœopathic State Medical Society in February last did not absolve the homœopaths from the law under which they had been placed by the regular medical profession in the Code of Ethics, article 4, clause 1. The resolution referred to was to the effect that, although firmly believing that "similia similibus curantur" constitutes the best general guide in the selection of remedies, this belief does not debar homœopathic practitioners from recognizing and making use of the results of any experience, and that it is the inviolable right of every educated physician to make practical use of any established principle in medical science, or of any therapeutical facts founded on experiments and verified by experience, so far as in his individual judgment they shall tend to promote the welfare of those under his professional care.

At the June meeting of the society (held on the 24th), the Comitia Minora's resolution came up for action, and naturally elicited a lively discussion. During the course of the latter Dr. Sayre "brought down the house" by suggesting that if the homœopathic brethren wished to be recognized by us, let them follow the good example set them by the worthy president of the County Medical Society (Dr. John C. Peters), who had abjured their false gods, and come over into the ranks of the regular profession. The resolution was voted down by a considerable majority of the large number of members present, and the announcement of the result was greeted with no little applause.

A number of the profession were recently invited to a private exhibition at the New York Aquarium, of a remarkable living monstrosity, which is known as the "St. Benoit Twins." The twins are called "Rosa" and "Mary" (although, united as they are, it would seem more appropriate to bring their names together in one word, "Rose-Mary"), and they are now seven months old. They have two perfectly formed and natural heads, and two bodies also, as far as the last rib, but below that both are fused into one. They have four arms, only two legs, and each child has the control of but one of them. As far as the natural functions of life are concerned each is almost entirely separated from the other, and one may be sleeping while the other is laughing, or one crying while the other, is nursing. As their names would indicate they are of the female sex, and they have but one abdomen, one umbilicus, one vagina, and one rectum; although the stomachs and some at least of the other abdominal viscera seem to be separate. They were born at a place called St. Benoit, about thirty miles from Montreal, where their parents' families have resided for eighty years past. The father and mother, who are of French extraction, are about twenty-six years of age, and they have one other child, a girl two years old, whose body is perfectly normal in every respect. It is the first instance, so far as is known, of a freak of nature occurring in any members of the two families.

The general configuration of the monstrosity is not unlike that of the letter Y, the base being represented by the feet; and yet there was no difficulty at the time of its birth. There was no physician, and not even a professional midwife in attendance; only an ordinary female friend assisted the mother in her confinement. One of the heads presented first, and after that was delivered, the body belonging to it followed. Next came the body of the second child, with the two legs doubled up alongside of it, and finally the head of the second child. They are now really fine-looking children, and apparently perfectly healthy, although one of them seems to be somewhat larger and better developed than the other.

This double child belongs to the second species of the genus *dicephalus*, namely, the *dicephalus tetrabrachius*. In an elaborate essay on Compound Human Monsters, published in the transactions of the New York State Medical Society, for 1866, 1867, and 1868, Dr. G. J. Fisher, of Sing Sing, quotes seven instances of this species, with more or less detail. According to Dr. Fisher, it possesses a high degree of vitality, and some specimens of it have undoubtedly attained adult age. One of the best known cases is that of the Sardinian double child, Ritta-Christina, born in 1829. It was brought to Paris by the parents, who were poor, for the purpose of public exhibition; but this being interfered with by the police, it was kept in a cold room, on account of their poverty, and the exposure no doubt hastened its death, which occurred at the age of eight months and eleven days. Ritta, whose constitution had always been feeble, at last became very ill, three days previous to her death; during which time her indisposition did not in the slightest degree affect the health of Christina. At the moment when Ritta died Christina was hanging on the breast of her mother and playing with her face, when suddenly she relaxed her hold, heaved a sigh, and expired. From the autopsy it will be seen that the degree of separation was not so great as in the case of the St. Benoit twins. The right lobes of the lungs of Ritta and the left of Christina were not fully developed. The pericardium was single, but inclosed two hearts, which were so situated relatively to each other that during life their contraction and dilatation were synchronous, and hence the stethoscope transmitted but a single sound, which led to the opinion that only one heart existed. There was but one inferior mesenteric artery, which was supplied from the aorta of Christina, while there was an anastomosis of the inner or approximating iliac arteries belonging to each individual, forming a large transverse branch, which served to unite the circulation of the two children. The sympathetic nerves were separate and distinct as low as the pelvis. The digestive organs were double and separate as far as the lower third of the ileum, but from thence single. The stomachs, spleens, livers, etc., were right and left, but the livers were fused. There were two gall-bladders, occupying a medium position, and the uterus was double. The vertebral columns were entire, and separated at the sacra by a mass of bone, while the sternums were united at their manubria.

It is believed that the St. Benoit twins constitute the first instance of the four-armed two-legged dicephalus ever seen in America, and their further history will no doubt be watched with great interest by all the profession.

On Friday evening, June 27th, a large and elegant reception was given by Dr. Nathan Bozeman, at his residence on Fifth Avenue, in honor of Prof. T. G. Richardson, of New Orleans, late president of the American Medical Association, and Prof. S. D. Gross, of Philadelphia.

SHORT COMMUNICATIONS.

A CASE OF TRACHEOTOMY.[1]

BY HERMON J. SMITH, M. D.

In the early part of January, 1877, I was summoned to see a little fellow six years of age, whom I found suffering from what seemed an ordinary cold, and complaining of some soreness of throat. Nothing abnormal could be seen in the pharynx save a slight redness; but on the following day an increasing difficulty in respiration, with a brassy cough, led me to fear the formation of membrane in the larynx, and I prescribed the usual treatment. A continuous pain behind the lower third of the sternum was the only theme of the boy's complaint. On the third day, these symptoms having become exaggerated and the complexion dusky, it seemed to be a fair time for operation, and I called in consultation Dr. Charles A. Savory, who brought with him Dr. Fisk and Dr. Skinner, of Hoosac Tunnel. All agreed that the only chance was tracheotomy, and that not a very promising one. The patient being etherized, Dr. Savory began the operation, which was twice suspended to restore the respiration. No untoward event happened to interfere with the successful entrance of the tube into the trachea, but to our surprise the respiration instead of improving was even more difficult than before the operation, and the patient was placed upon the bed apparently to die in a brief time of suffocation. After an intense agony of ten minutes, each one of which promised to be his last, a result which the parents would gladly have welcomed as a happy termination of his sufferings, he sprang up in his bed, and with a tremendous effort expelled something through the tube to the distance of several feet, and sank back with perfect relief, breathing quietly. This substance proved to be a complete cast of the trachea, the right and left bronchi, and many of the finer bronchial tubes, which specimen I have preserved, and offer you for your examination.

From noon on the following day the respiration grew more and more labored till five o'clock, when the condition was perilous. We found almost complete obstruction to the passage of air. The inner tube was removed and washed, with no relief. A bent probe was pushed into the canula with the hope of pushing away whatever secretion had fastened itself upon its lower extremity, but to no purpose. Finally, a gentleman present, who is engaged in the manufacture of patent milkers, in the construction of which rubber tube is used, suggested the trial of a piece of it which he had in his pocket. The tube was tried, and was passed several inches below the extremity of the canula, which was followed by the expulsion of a piece of hard, gluey substance the size of a bean, and the natural respiration was immediately established. Two days afterwards, at midnight, the same critical situation happened, but before I could reach the patient the nurse felt impelled to interfere, and had passed the rubber tube with so much success that nothing remained for me to do. This gluey substance was continually forming, and it required the most assiduous attention to keep it from blocking up the tube. Both tubes were occasionally removed to be cleansed, and it was found that the gluey mass began to form upon the lower extremity of the outside tube. On the ninth day the tube was permanently removed, the aphonia disappeared in three weeks, and the boy is to-day a living example of the value of tracheotomy.

In connection with this case there were several points which were of especial interest to me: and first the great watchfulness required in the after-treatment to prevent obstruction to respiration. Trousseau, who has reduced to writing his very extensive experience in tracheotomy, says the formation of a gluey substance upon the tube is a very unfavorable symptom. Twice in our case this material almost completely blocked up the tube, forming as it did upon the lower extremity of it. The rubber tube proved a valuable aid in dislodging it, and I cannot think of anything better adapted for the purpose. It is soft and elastic, and can be safely run, if necessary, with considerable force into the trachea. Moreover, being hollow it allows the free passage of air while inserted in the canula. Nurses can use it in an emergency without danger of injuring the parts.

---

[1] Read before the Lowell Medical Journal Society.

Secondly, before making the trial I feared that to take out both tubes from the trachea might prove a dangerous experiment, inasmuch as the walls of the opening would collapse and obstruction to the passage of air be complete; but to my surprise the canal remained gaping open, and the tube was reinserted with ease. The tubes were removed for cleansing about twenty-four hours after their first insertion.

Thirdly, Was this croup or diphtheria ? I shall not discuss the point here, but will only state a curious fact in connection with the case. The boy without doubt had what may be called a classical case of croup, according to the accepted description of that disease as found in authorized works. There was no membrane at any time in sight, no fœtor, no enlargement of the cervical glands, and there was a full, firm pulse. But during the following week the mother and two older children had well-marked diphtheria. A lady, also, in an adjoining house, who had rendered kindly offices to the sick family, was attacked at the same time with diphtheria.

Such is a brief description of what to me was a very interesting and instructive case. While it has increased my faith in the feasibility of the operation of tracheotomy, it has led me to believe that many cases prove fatal from insufficient care and watchfulness in the after-treatment.

EXCISION OF SPLEEN.

Mr. Editor, — In the American reprint of the London *Lancet* for July, 1878, page 336, under the heading Splenotomy, is the following statement: —

"An account of what appears to have been the first case of excision of the human spleen in America was lately read before a medical society in Sacramento, and subsequently recorded in the *Pacific Medical and Surgical Journal.*" The operation was performed in June, 1877.

The writer of the above is mistaken as to the fact of this being the first operation of its kind performed in America. Some seven or eight years ago the present writer, with other physicians, assisted Dr. Oscar C. Dewolf, late of Northampton, now health commissioner of the city of Chicago, in removing a diseased spleen from a woman in Florence, Mass. The patient did well for many hours, — I think a day or two, — but finally died rather suddenly.

F. B.

ABSTRACT OF SANITARY REPORTS RECEIVED DURING THE PAST WEEK UNDER THE NATIONAL QUARANTINE ACT. — No. III.

Office Surgeon-General U. S. M. H. S., Washington, *July* 27, 1878.

New Orleans. — About the 12th inst. cases of yellow fever began to occur in New Orleans. At first they were at one focus of infection only, but others soon appeared at different points, and up to yesterday evening thirty-seven cases and seventeen deaths had been reported to the State Board of Health. So far the board has been unable to trace the outbreak to foreign source. Carbolic acid disinfection is being vigorously carried out at all infected points, and the remarkable success which has attended the efforts of the board in this direction in the past few years gives hope of preventing the outbreak from assuming epidemic proportions. Three or four persons from New Orleans have died of yellow fever at points above that place on the Mississippi.

Brooklyn. — No new cases at Navy Yard since last Saturday's report.

Key West. — From 10th inst. to noon to-day six new cases of yellow fever in the harbor and three in the city have occurred.

Havana. — During the week ended July 13th there were ninety-seven deaths from yellow fever and twenty-two from small-pox.

Matanzas. — Advices to 19th show increased cases and increased ratio of deaths.

Japan. — Occasional cases of cholera during winter and spring to June 19, 1878, at Yokohama and vicinity show the poison has survived the winter. The epidemic of last September, October, and November extended to all parts of the empire, with a mortality of 7967 out of a total of 13,710 cases, or 581+ deaths to 1000 cases. No means yet instituted in Japan to prevent importation of the disease from China, where it exists, and where the famine furnishes most favorable conditions for its reappearance in a more malignant form.[1]

Calcutta. — Twenty-two deaths from cholera during the week ended May 25th.

Bombay. — Twenty-nine deaths from cholera during week ended May 28th.

Reports received from other places indicate good health. **John M. Woodworth,**
Surgeon-General U. S. Marine Hospital Service.

COMPARATIVE MORTALITY-RATES.

	Estimated Population, July 1, 1878.	Deaths during week ending July 27, 1878.	Annual Death-Rates per 1000 living.		
			For the Week.	For the Year 1877.	Mean for ten Years, '68-77
New York.	1,093,171	732	34.82	23.42	28.71
Philadelphia.	876,118	420	24.93	18.80	21.54
Brooklyn.	549,438	247	23.38	21.51	25.50
Chicago.	460,000	216	24.42	17.83	22.39
Boston.	375,476	176	24.37	20.10	24.34
Providence.	100,000	41	21.32	18.81	19.20
Lowell.	55,798	36	33.55	19.09	22.50
Worcester.	54,937	20	18.94	14.07	22.30
Cambridge.	53,547	29	28.16	18.69	20.83
Fall River.	53,207	22	21.50	21.35	24.96
Lynn.	35,528	10	14.64	20.42	19.67
Springfield.	33,981	11	16.84	16.02	19.77
Salem.	27,140	8	15.33	20.38	21.15

American Dermatological Association. — The next annual meeting of the association will be held at the Grand Union Hotel, Saratoga Springs, N. Y., on the 27th, 28th, and 29th of August. Many important papers will be read. Regular practitioners are cordially invited to attend the meeting. R. W. Taylor, M. D., *Secretary.*

Books and Pamphlets Received. — Ninth Biennial Report of the Iowa Hospital for the Insane at Mount Pleasant, 1876, 1877.

Twenty-Fourth Annual Report of the Board of Education, City of Oswego, for the Year ending February 15, 1877.

Catalogue Allen's Academy, 1877-78.

Annual Announcement Fort Wayne Medical College, 1877-78.

On the Postural Treatment of Tympanites Intestinalis following Ovariotomy. By Edward W. Jenks, M. D. (Reprinted from the American Journal of Obstetrics, July, 1878.)

Transactions of the Medical Association of Georgia. Twenty-Ninth Annual Session. Atlanta, April, 1878.

Proceedings of the Connecticut Medical Society, 1878. Eighty-Seventh Annual Convention. Held at New Haven, May 21st and 22d. C. W. Chamberlain, M. D., Secretary. Hartford, Ct.

The Pith of the Dried Cornstalk as a Uterine Tent, etc. By W. T. Goldsmith, M. D., Atlanta. (Reprint.)

---

[1] Dr. D. B. Simmons, chairman Health Board, Yokohama, etc.,